

Serial No.: 10/669,957
Docket No.: AD6917 USNA

Page 7

REMARKS

The Official Action issued on March 9, 2006, rejects claims 1, 12 and 23 to 31 as obvious under 35 U.S.C. §103(a) in view of U.S. Patent Appln. Publn. No. 2004/0209705 by Rajagopalan et al. (hereinafter "Rajagopalan"). Applicant respectfully traverses this rejection. The facts and reasoning submitted previously in the prosecution are neither withdrawn nor abandoned. In addition, Applicant respectfully submits the following analysis.

The Official Action once more asserts that, since the materials described in Rajagopalan are "the same" as those claimed in the present application, "the remaining properties are considered obvious over Rajagopalan." Official Action at page 2. The premise of this syllogism is flawed, however, because one of the materials described in Rajagopalan is in fact mutually exclusive from the specifically recited component of claim 1 to which it is alleged to correspond.

First, Applicant notes that the "high crystalline acid copolymers" described in paragraph [0083] of Rajagopalan have a molecular weight that is simply not within Applicant's claimed range. The molecular weight of the copolymers of ethylene and (meth)acrylic acid (component (b)) is specifically recited to be from about 2,000 to about 30,000 Daltons. As is set forth in detail in the Response dated October 17, 2005, these molecular weights are simply too low to be measured by the melt index method. In contrast, Rajagopalan in paragraph [0083] explicitly requires that the "high crystalline acid copolymers" have a melt index between about 20 and about 300 g/10 min.

Thus, Applicant's claimed component (b) has a monomer composition that overlaps with the "high crystalline acid copolymers" described in Rajagopalan. The inconsistency in the molecular weight ranges, however, which do not overlap at all, means that it is physically impossible for these two molecules to be "the same."

Serial No.: 10/669,957
Docket No.: AD6917 USNA

Page 8

In summary, a prima facie case of obviousness cannot be made out over Rajagopalan, because Rajagopalan does not teach or suggest every element of Applicant's claimed invention. In the alternative, assuming arguendo that a prima facie case of obviousness could be made out over Rajagopalan, the specification includes evidence of unexpected results sufficient to overcome any such prima facie case.

For example, scuff resistance is an advantageous characteristic that provides concrete value to consumers of golf balls, for instance by extending the usable life or aesthetically pleasing appearance of the golf ball. Table 4 on page 23 of the specification sets forth the scuff resistance of golf balls covered having covers prepared from thirteen different examples of the invention, compared to the scuff resistance of two commercially available "premium" golf balls having polyurethane covers that are generally considered to have good scuff resistance. See the paragraph bridging pages 2 and 3 of the specification. The procedure for scuff resistance testing is described in the specification beginning on page 24 at line 16. The rating scale for scuff resistance appears on page 25 of the specification; briefly, however, 0 is the best rating and 5 is the worst.

The results in Table 4 demonstrate conclusively that the golf ball covers of the invention perform significantly better than the "premium" polyurethane golf ball covers. The average scuff resistance of the thirteen examples of the invention was 1.60, compared with 2.85 for the commercially available golf balls. This represents an overall improvement of about 44% in a highly desirable property.

Aside from the fact of the improvement and its magnitude, Applicant respectfully submits that these experimental results are also counterintuitive. This is because, in general, one of skilled in the art would expect that lowering the molecular weight of the polymers used in the golf ball covers would result in a ball having decreased scuff resistance.

Serial No.: 10/669,957
Docket No.: AD6917 USNA

Page 9

For further evidence of unexpected superior results, the Examiner's attention is respectfully directed to U.S. Patent No. 6,562,906, which shares inventorship and ownership with the present application. The '906 patent describes bimodal compositions similar to those claimed herein and demonstrates that golf balls using the claimed blends have other surprising properties that are at odds with the conventional wisdom with respect to the effect of molecular weight of polymeric components on golf ball properties.

For example, Applicant has discovered that the golf balls made from the bimodal compositions have: higher resilience than conventional balls using conventional ionomer blends; higher heat stability vs. conventional balls; lower creep than conventional balls; and less of a dependence of resiliency on impact speed, that is, less of an increase in COR as impact speed decreases. This last property is particularly interesting, in that it correlates to improved playability in a golf ball. When the ball is hit harder, for example when teeing off in a golf game, the ball will travel farther because the resiliency (COR) is higher than conventional balls at high impact speed. As the impact speed is reduced, however, for example during putting, a ball prepared from the claimed blend is less resilient and therefore does not bounce as much, which allows for better control at low impact speed.

To reiterate, Applicant believes that the foregoing evidence of unexpectedly superior results is sufficient to overcome any prima facie case of obviousness based on Rajagolapan.

For the above reasons, Applicant respectfully requests that the rejection of claim 1 under 35 U.S.C. § 103 be withdrawn upon reconsideration. In this connection, independent claim 12 includes the compositional and property features of claim 1. It follows by logic, then, that claim 12 is also not obvious for at least the same reasons as claim 1. Claims 23 to 31 depend from claim 1; therefore, by statute, claims 23 to 31 are also not obvious for at least the same

Serial No.: 10/669,957
Docket No.: AD6917 USNA

Page 10

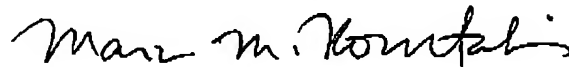
reasons as claim 1. Consequently, Applicant further respectfully requests that the rejection of claims 12 and 23 to 31 under 35 U.S.C. § 103 be withdrawn upon reconsideration.

Conclusion

A Petition for an Extension of Time for one month and the required fee for the extension are filed concurrently herewith. Should any further fee be required in connection with the present response, the Examiner is authorized to charge such fee to Deposit Account No. 04-1928 (E.I. du Pont de Nemours and Company).

In view of the above remarks, it is believed that all claims are in condition for allowance, and such action is respectfully requested. In closing, the Examiner is invited to contact the undersigned by telephone to conduct any business that may advance the prosecution of the present application.

Respectfully submitted,



MARIA M. KOURTAKIS
ATTORNEY FOR APPLICANT
Kelly Law Registry on behalf of DuPont Legal
Registration No.: 41,126
Telephone: (302) 892-1004
Facsimile: (302) 992-3257

Dated: July 10, 2006